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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/042,143

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Wei Lin

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05/23/2006

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EXAMINER

BATURAY, ALICIA

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,143

Applicant(s)

LIN ET AL.

Examiner

Alicia Baturay

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03272006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the amendment filed 27 March 2006.
2. Claims 26, 27, 34 and 37-39 were amended.
3. Claims 45-56 were cancelled.
4. Claims 1-44 are pending in this Office Action.

Response to Amendment

5. The rejection of claims 2, 13, 24 and 35 under 35 U.S.C. § 112, 2nd paragraph regarding indefiniteness remains outstanding.
6. Applicant's amendments and arguments with respect to claims 1-44 filed on 27 March 2006 have been fully considered but they are deemed to be moot in view of the new grounds of rejection.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Regarding claims 2, 13, 24 and 35, the phrase "less than about" renders the claim indefinite because the metes and bounds are unclear. It is suggested that Applicant amend "less than about" to "around."

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mallory (U.S. 6,954,800) and further in view of Homma et al. (U.S. 5,572,678).

Mallory teaches the invention substantially as claimed including a method of enhancing network transmission between stations on a priority-enabled frame-based communications network (see Abstract).

11. With respect to claim 1, Mallory teaches a method for providing access to a communications medium, the communications medium being suitable for allowing use of a plurality of Home Phoneline Network Association (HPNA) v2 frames (Mallory, col. 2, lines 9-28), the method comprising steps of:

Transmitting a sequence of blocking frames on the communications medium (Mallory, col. 103, line 66 – col. 104, line 3); transmitting a message from a Media Control Station (MC STA) to at least one selected non-Media Control Station (non-MC STA) when the blocking frames are transmitted (Mallory, col. 104, lines 29-30); and receiving a reply

message to the transmitted message at the MC STA from a selected non-MC STA when the blocking frames are transmitted (Mallory, col. 104, lines 29-37).

Mallory does not explicitly teach frames using timing that is different than that defined by the HPNA vs2 specification.

However, Homma teaches each blocking frame having timing to allow an Inter-Frame Gap (IFG) having a duration that is not recognized by an HPNA v2 station (STA) as a duration defined by an HPNA v2 specification (Homma, col. 7, lines 6-52) for an HPNA IFG (Mallory, col. 20, lines 13-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mallory in view of Homma in order to enable frames using timing that is different than that defined by the HPNA vs2 specification. One would be motivated to do so in order to enable transferring a large amount of data among a plurality of computer-equipped stations on a network with high efficiency and high reliability.

12. With respect to claim 2, Mallory teaches the invention described in claim 1, including the method where the duration of each IFG between blocking frames is less than about 17 μ sec (Mallory, col. 23, lines 54-57).
13. With respect to claim 3, Mallory teaches the invention described in claim 1, including the method where each blocking frame (Mallory, col. 104, lines 30-37) includes a Blocking Frame Type field (Mallory, col. 12, lines 49-54).

14. With respect to claim 4, Mallory teaches the invention described in claim 3, including the method where information contained in the Blocking Frame Type field identifies a frame type that is known to a v2 STA (Mallory, col. 12, lines 49-54).
15. With respect to claim 5, Mallory teaches the invention described in claim 3, including the method where information contained in the Blocking Frame Type field (Mallory, col. 12, lines 49-54) identifies a frame type that is unknown to a v2 STA (Mallory, col. 31, lines 12-14).
16. With respect to claim 6, Mallory teaches the invention described in claim 1, including the method where each blocking frame is assigned a highest HPNA v2 priority available in an HPNA v2 frame (Mallory, col. 103, line 66 – col. 104, line 3).
17. With respect to claim 7, Mallory teaches the invention described in claim 1, including the method where each blocking frame includes a scrambler initialization field having a fixed length (Mallory, col. 12, lines 57-60).
18. With respect to claim 8, Mallory teaches the invention described in claim 1, including the method where each blocking frame (Mallory, col. 104, lines 30-37) includes a scrambler initialization field (Mallory, col. 16, lines 24-25) having a variable length (Mallory, col. 16, lines 2-3).

19. With respect to claim 9, Mallory teaches the invention described in claim 1, including the method where each blocking frame (Mallory, col. 104, lines 30-37) includes a payload encoding field (Mallory, col. 31, lines 39-43).
20. With respect to claim 10, Mallory teaches the invention described in claim 9, including the method where each payload encoding field includes information that is known to a v2 STA (Mallory, col. 31, lines 43-55).
21. With respect to claim 11, Mallory teaches the invention described in claim 9, including the method where each payload encoding field includes information that is unknown to a v2 STA (Mallory, col. 33, lines 34-52).
22. Claims 12-44 do not teach or define any new limitations above claims 1-11 and therefore are rejected for similar reasons.

Response to Arguments

23. Applicant's arguments filed 27 March 2006 have been fully considered, but they are not persuasive for the reasons set forth below.

24. ***Applicant Argues:*** As to claim 1, Applicant states "Mallory does not teach expressly or inherently 'each blocking frame having timing to allow an Inter-Frame Gap (IFG) having a duration that is not recognized by an HPNA v2 station (STA) as a duration defined by an HPNA v2 specification for an HPNA IFG.'"

In Response: The examiner respectfully submits that Applicant's arguments with respect have been considered but are moot in view of the new ground(s) of rejection.

25. ***Applicant Argues:*** As to claim 2, Applicant states "Thus, the relied upon portions of Mallory do not teach or suggest, expressly or inherently, 'the duration of each IFG between blocking frames is less than about 17 μ sec.'"

In Response: The examiner respectfully submits that because Applicant uses the qualifying terms "less than about 17 μ sec." The Office interprets "less than about 17 μ sec" to include 29 μ sec. This renders the rejection proper, and thus rejection stands.

26. ***Applicant Argues:*** As to claim 3, Applicant states “Thus, the relied upon portions of Mallory do not teach or suggest, expressly or inherently, ‘each blocking frame includes a Blocking Frame Type field.’”

In Response: The examiner respectfully submits that Mallory teaches each blocking frame (blocking frames – Mallory, col. 104, lines 30-37) includes a Blocking Frame Type field (Frame Type is an as an eight bit field that is intended to provide flexibility for defining other frame formats in future versions of the embodiment – see Mallory, col. 12, lines 49-54). Because a blocking frame is a type of frame, then a blocking frame would incorporate this frame type field. This renders the rejection proper, and thus rejection stands.

27. ***Applicant Argues:*** As to claim 5, Applicant states “Thus, the relied upon portions of Mallory do not teach or suggest, expressly or inherently, ‘information contained in the Blocking Frame Type field identifies a frame type that is unknown to a v2 STA.’”

In Response: The examiner respectfully submits that Mallory teaches information contained in the Blocking Frame Type field (Frame Type is an as an eight bit field that is intended to provide flexibility for defining other frame formats in future versions of the embodiment – see Mallory, col. 12, lines 49-54) identifies a frame type that is unknown to a v2 STA (V2 receivers are able to remove at least one encapsulating header with an unknown

subtype from any received data frame – see Mallory, col. 31, lines 12-14). This renders the rejection proper, and thus rejection stands.

28. ***Applicant Argues:*** As to claim 8, Applicant states “Thus, the relied upon portions of Mallory do not teach or suggest, expressly or inherently, ‘each blocking frame includes a scrambler initialization field having a variable length.’”

In Response: The examiner respectfully submits that Mallory teaches each blocking frame (blocking frames – Mallory, col. 104, lines 30-37) includes a scrambler initialization field (any bits following the SI field are scrambled – see Mallory, col. 16, lines 24-25) having a variable length (the scrambler initialization circuit inserts the N bits into any of the M bits of a scrambler delay line – see Mallory, col. 16, lines 2-3). This renders the rejection proper, and thus rejection stands.

29. ***Applicant Argues:*** As to claim 9, Applicant states “Thus, the relied upon portions of Mallory do not teach or suggest, expressly or inherently, ‘each blocking frame includes a payload encoding frame.’”

In Response: The examiner respectfully submits that Mallory teaches each blocking frame (blocking frames – Mallory, col. 104, lines 30-37) includes a payload encoding field

(the payload encoding that can be achieved is a function of the channel quality between source and destination – see Mallory, col. 31, lines 39-43). This renders the rejection proper, and thus rejection stands.

30. ***Applicant Argues:*** As to claim 11, Applicant states “Thus, the relied upon portions of Mallory do not teach or suggest, expressly or inherently, ‘each payload encoding field includes information that is unknown to a v2 STA.’”

In Response: The examiner respectfully submits that Mallory teaches each payload encoding field (the payload encoding that can be achieved is a function of the channel quality between source and destination – see Mallory, col. 31, lines 39-43) includes information that is unknown to a v2 STA (whenever a transition to V2 mode occurs, sender PE is reset to a value of 1 for all channels. A station which is not capable of transmitting or decoding compatibility mode frames (hereafter referred to as a non-compatible station) – see Mallory, col. 33, lines 34-52). This renders the rejection proper, and thus rejection stands.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alicia Baturay
May 18, 2006


SALEH NAJJAR
SUPERVISORY PATENT EXAMINER